

FluBytes

May 11, 2006

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Key Points

Flu Partners Update: Seasonal Influenza

New articles!

1) Vaccinating healthcare workers against influenza to protect the vulnerable—Is it a good use of healthcare resources? A systematic review of the evidence and an economic evaluation

2) Safety of influenza vaccinations administered in nontraditional settings (read if you are planning mass clinics!)

They are attached to this email.

MDCH's new comprehensive influenza website (www.michigan.gov/flu) is up and running and looks great! .

Flu Partners Update: Avian Influenza and Pandemic Preparedness

On Tuesday, May 9 a made-for-TV movie titled "Fatal Contact: Bird Flu in America" aired. The movie follows an outbreak of the H5N1 avian flu virus from its origins in a Hong Kong market through its mutation into a pandemic virus that becomes easily transmittable from human to human and spreads rapidly around the world. On page 4 are talking points compiled by the Department of Health and Human Services to address questions that may arise.

The most frequent updates on the avian influenza situation can be found on the CDC website at <http://www.cdc.gov/flu/whatsnew.htm#new>

The U.S. government has awarded five pharmaceutical companies a total of \$1 billion to develop improved methods of making flu vaccine as part of the White House's \$7.1 billion plan to thwart a potential pandemic. Two companies won contracts: [MedImmune Inc.](#), a Gaithersburg biotech firm, was awarded \$169 million; and DynPort Vaccine Co. of Frederick received \$41 million. The rest of the funding will be split by companies in Belgium, Switzerland and Britain. The companies each agreed to build or expand a vaccine plant in this the U.S. Each will seek to grow flu vaccine virus in cell cultures rather than in fertilized chicken eggs and apply for Food and Drug Administration approval for its vaccine.

FLUBYTES survey is coming later this month! The Education and Communication FAB (EC-FAB) subcommittee will be sending an **online** survey to members of FAB, the IAP coordinators, MACI, and AIM to give our group feedback on this newsletter. We plan to continue this communication in the future, and look forward to finding out your thoughts on the matter.

Surveillance update

Flu Trends

Please see the Michigan Flu Focus report that is attached to this email.

Avian Influenza Surveillance (most current as of this summary): WHO Pandemic Phase 3: Human infection(s) with a new subtype, but no human-to-human spread. (http://www.who.int/csr/disease/avian_influenza/phase/en/)

The Ministry of Health in Djibouti has confirmed the country's first case of human infection with the H5N1 avian influenza virus. The patient is a 2-year-old girl from a small rural village in Arta district. She developed symptoms on 23 April. She is presently in a stable condition with persistent symptoms. Three tests conducted on 10 May by the Cairo-based US Naval Medical Research Unit 3 (NAMRU-3) confirmed the child's infection with the H5N1 virus. She is the first case of human infection reported in the Horn of Africa. Three of the child's sibilinas are under

investigation for possible infection and are also receiving care. Samples have been taken and are being sent to NAMRU-3 for testing. Health authorities in Djibouti initiated surveillance for human cases following reports of a small number of chicken deaths in early April. NAMRU-3 has also confirmed the presence of H5N1 virus in samples from three chickens. Surveillance for additional human and animal cases is presently under way, but is hindered by the country's lack of resources and of epidemiological and laboratory capacities. The search for human cases has been further complicated by a concurrent outbreak of dengue fever, which can mask the occurrence of other febrile illnesses with abrupt onset of symptoms, including H5N1 infection. The situation in animals is poorly understood. Most of the country's population is concentrated in the Djibouti district, where many households keep small numbers of poultry. Poultry production in other parts of the country is limited. High mortality in poultry flocks has not been detected to date. At the request of the Ministry of Health, WHO is arranging urgent support for the country's investigation and response to the outbreak.

Surveillance questions: Rachel Potter at PotterR1@michigan.gov

Office Planning for 2006-2007

Plan on being an influenza sentinel site! As an influenza sentinel, you will receive weekly faxed updates on influenza activity in Michigan, the avian influenza A (H5N1) epizootic, and other up-to-the-minute influenza news. In addition, sentinels are subscribed to two CDC journals: the *Morbidity and Mortality Weekly Report* and *Emerging Infectious Diseases*. Becoming aware of the infectious diseases circulating in your community, the nation, and the world will help you provide optimal health care to your clients this influenza season. Start now by contacting Rachel Potter at 517-335-9710 or potterr1@michigan.gov to find out more.

Is your medical office ready for a pandemic flu outbreak? Health care providers will play a crucial role in the event of a pandemic. Planning is the key to being ready in your office, and for your community. The government official pandemic flu website has helpful checklists, a toolkit, and guidelines to assist health care providers and service organizations in planning for a pandemic outbreak. Be prepared!
<http://www.pandemicflu.gov/plan/medical.html>

Have you ordered vaccine for the 2006-2007 season? If not, please see the list at the end of this newsletter for contact information.

Quick References:

Prevention and Control of Influenza, Recommendations of the Advisory Committee on Immunization Practices (ACIP) <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5408a1.htm>

FREE! The 2006 Influenza Vaccination Pocket Guide (INE Program material) is available through the MDCH Clearinghouse at <http://www.hpclearinghouse.org/immun/inimm.html>

FluBytes is distributed to MDCH flu partners for informational and communication purposes.
Please feel free to distribute widely.

For questions on FluBytes, please contact Liz Harton, Public Health Advisor at hartone@michigan.gov

This newsletter is distributed to local health departments, Immunization Action Plan (IAP) Coordinators, members of the Michigan Advisory Committee on Immunizations (MACI), Alliance for Immunization in Michigan (AIM), and representatives of the Flu Advisory Board (FAB).

TALKING POINTS

- The ABC Movie "Fatal Contact: Bird Flu in America" is a movie, not a documentary. It is a work of fiction designed to entertain and not a factual accounting of a real world event.
- There is no influenza pandemic in the world at this time.
- Also, it is important to remember that H5N1 avian influenza is almost exclusively a disease of birds. The H5N1 virus has not yet appeared in the U.S.
- Should the H5N1 virus appear in the U.S., it does not mean the start of a pandemic.
- An additional point to remember is that the next influenza pandemic could be substantially less severe than what the movie depicts or that occurred in 1918. For example, the influenza pandemics of 1957/58 and 1968/69 caused so much less illness and death than did the 1918/19 pandemic that many Americans at that time did not distinguish them from seasonal influenza and were unaware that a pandemic was underway.
- While the movie does serve to raise awareness about avian and pandemic flu, we hope it will inspire preparation – not panic. There are steps individuals, families and communities can take to prepare. You can keep a supply of food and medicines on hand in case you have to stay home, you can practice good public health measures like frequent hand washing and staying home when sick. There is good information available on www.pandemicflu.gov.
- The film does depict scenarios that could unfold should a severe pandemic ever develop, including limited availability of antivirals and vaccines as well as the potential for disruption of supplies, medicines and other essential services.
- The film also illustrates the expected months-long delay in developing an effective vaccine against a pandemic strain of influenza once it emerges. This is why, at the President's request, the Congress approved funding for the Department of Health and Human Services to make significant financial investments to improve the technology for vaccine development and to build up our domestic vaccine production capacity, to ensure more rapid availability of vaccine for the population in a pandemic.
- The film highlights an important aspect of planning – individual and community planning and cooperation that will be so vital to sustaining communities and neighborhoods during an extended wave of an influenza pandemic. HHS has developed an extensive set of planning documents, including planning checklists for businesses, schools, health care providers, community organizations and states as well as an individual and family planning guide. All of these materials are available at www.pandemicflu.gov.
- While the H5N1 virus has not yet appeared in the U.S., and there is no influenza pandemic in the world at this time, it is important for all Americans to be informed about this potential public health threat and some of the steps individual Americans can take to protect themselves and their families in the event of a pandemic.

QUESTIONS AND ANSWERS

Many people in the movie are seen wearing surgical masks. Will masks protect me?

Surgical masks are recommended for health care workers who are subjected to repeated exposure to multiple patients. For health care workers performing certain medical procedures on infected patients, N95 respirators are recommended. Surgical masks are also recommended for patients who are infected to help reduce the potential

for spread of virus when these people cough or sneeze. HHS will continue to review and update as needed its public health guidance on the use of masks and respirators by healthcare workers and by the general public.

The movie shows the virus spreading in many ways besides coughing or sneezing, such as handshakes, kissing, sharing drinks, etc. Is that correct?

Influenza virus is primarily spread by airborne droplets that reach the eyes, nose or mouth but can also spread by touching contaminated surfaces and then touching one's face. This highlights the importance of learning and practicing good personal hygiene, including:

- Wash hands frequently with soap and water.
- Cover your mouth and nose with a tissue when you cough or sneeze.
- Put used tissues in a waste basket.
- Cough or sneeze into your upper sleeve if you don't have a tissue.
- Clean your hands after coughing or sneezing. Use soap and water or an alcohol-based hand cleaner.
- Stay at home if you are sick.

The film indicates that there will be a shortage of Tamiflu (or other antivirals) in a pandemic. Will there be? And if so, what is the government doing to prevent that?

HHS is stockpiling enough antivirals to treat 25% of the U.S. population should a pandemic occur in the U.S. This figure is based on historical data from past pandemics indicating that roughly 25% of the population would get sick in a pandemic and would benefit from antiviral treatment if started early in the course of illness. To date, the U.S. government has purchased 26 million antiviral treatment courses and expects to have on hand a total of 81 million treatment courses by the end of 2008.

In the movie officials quickly find out that there is no vaccine available when the pandemic occurs nor will any be available for many months. Will we have vaccine available if a pandemic occurs?

There likely will be no vaccine initially available that precisely matches the pandemic strain when a pandemic begins. Because influenza viruses continually evolve and mutate, it is not possible to develop a vaccine until after the pandemic strain actually comes into existence. Only after the strain emerges, is isolated and characterized can a vaccine be developed and manufactured. Based upon current vaccine production processes and capacities, it will take at least 6 months to begin producing pandemic vaccine once a pandemic strain occurs.

HHS has been developing and stockpiling an experimental "pre-pandemic" H5N1 vaccine that may offer some level of immune protection should the H5N1 virus mutate into a pandemic strain. Having a stockpile of this vaccine for up to 20 million people, may help delay or lessen the initial impact of a pandemic while vaccine against the actual pandemic strain is developed and produced.

However, HHS is making significant financial investments to improve the technology for vaccine development and to build up our domestic vaccine production capacity, to ensure more rapid availability of vaccine for the population in a pandemic.

Many neighborhoods were quarantined in the film. Even the Governor of Virginia quarantined himself, his staff and his family from the rest of the world. Will the government quarantine people in a pandemic?

The purpose of quarantine is to separate people who have been potentially exposed to a contagious disease and may be infected but are not yet ill to stop the spread of that disease. The last large-scale quarantine measures that were imposed in this country were used in the early 20th century to contain outbreaks of plague, yellow fever, and smallpox.

Today, quarantine typically refers to confining potentially infected persons to their homes or community-based facilities, usually on a voluntary basis. Quarantine can be used for a defined group of people who may have been exposed at a public gathering, or who may have been exposed while traveling, particularly overseas. In extreme cases, quarantine could apply to an entire geographic area, in which case a community may be closed off by sealing its borders or by a barricade, known as a "cordon sanitaire".

In the case of pandemic influenza, quarantine may be one of the public health tools employed in the early days of an emerging pandemic if efforts are undertaken to contain the outbreak before it spreads too widely. Once a pandemic has begun to spread, quarantine is not likely to be effective in controlling the spread, and instead efforts may turn to "social distancing." Social distancing includes measures to increase distance between individuals, such as staying home when ill unless seeking medical care, avoiding large gatherings, telecommuting, and school closures.

In the movie, we learn that the virus is beginning to develop resistance to Tamiflu, rendering the drug useless. Could that happen? If so, why are we buying so much Tamiflu for the stockpile?

Tamiflu, and another antiviral, Relenza, have shown effectiveness in treating influenza. Early evidence suggest that Tamiflu may be effective in treating those patients who have been infected with the H5N1 avian flu virus.

While there have been a few reports of Tamiflu resistance developing on therapy, there has been no transmission of a resistant virus. The resistance developing on therapy has been associated with starting the drug late or using low doses of this drug. Tamiflu, when used at proper doses and started within a few days of the appearance of symptoms should be effective treatment of this infection.

Relenza has not been used in treating human H5N1 cases to date, as it has been unavailable in many countries that have had people infected with H5N1. but experts expect it would be an effective treatment also.

HHS is stockpiling enough antivirals to treat 25% of the U.S. population should a pandemic occur in the U.S. This figure is based on historical data from past pandemics indicating that roughly 25% of the population would get sick in a pandemic. To date, the U.S. government has purchased 26 million antiviral treatment courses and expects to have on hand a total of 81 million treatment courses by the end of 2008. Of its antiviral purchases, the U.S. is buying approximately 80% of its supply as Tamiflu and about 20% of its supply as Relenza. This is due in part to product availability but also to the need to diversify the supply so as to not rely solely on one medication.

Many essential services (e.g. electricity, food, water, etc.) become scarce in the film's scenario. Could that happen?

An especially severe influenza pandemic could lead to high levels of illness, death, social disruption, and economic loss. Everyday life would be disrupted because so many people in so many places become seriously ill at the same time. Impacts can range from school and business closings to the interruption of basic services such as public transportation and food delivery.

In addition, a substantial percentage of the world's population will require some form of medical care. Health care facilities can be overwhelmed, creating a shortage of hospital staff, beds, ventilators and other supplies. Non-traditional sites such as schools may need to be used for patient care to cope with demand.

The film depicted many people who simply walked off their jobs. Would that really occur?

In a severe pandemic, it is very possible that up to 40% of a business' or organization's workforce will be out sick or at home taking care of sick family members. It is also possible that a small percentage of this amount will be people who are healthy but who may be too frightened to venture out into public.

The numbers of health-care workers and first responders available to work can be expected to be reduced as they will be at high risk of illness through exposure in the community and in health care settings, and some may have to miss work to care for ill family members.

What will be do with the overwhelming number of deceased bodies if we have a severe, 1918-like pandemic as was depicted in the film?

Addressing the possibility of a large number of deceased individuals in a pandemic is one of our top pandemic planning priorities. Currently, we are working on modeling studies to try to determine as clearly as we can what we could possibly expect in terms of numbers of deaths over the course of several pandemic waves. Until these studies are done, we won't be able to speculate on details of what we might or might not expect. We expect this work to be done in the next few months.

Regardless of whatever estimates are developed, it is highly unlikely that in the 21st Century in the U.S. that we would ever resort to mass graves. We are working with many government agencies (e.g. VA) as well as the private sector (e.g. the funeral industry, the cemetery industry) to develop guidance for states, local communities and others that maintains the dignity of the deceased, honors family wishes, and respects religious and social customs.

Deciding who gets vaccine was a major question in the film. In a real pandemic, how will you decide who gets vaccine first?

The greatest risk of hospitalization and death—as seen during the last two pandemics in 1957 and 1968 pandemics and during annual influenza—will be in infants, the elderly, and those with underlying health conditions. These individuals, along with health care providers, who are critical to maintaining a health care system in a pandemic, would likely be the first individuals to receive the first supplies of vaccine. However, in the 1918 pandemic, most deaths occurred in young adults, highlighting the need to remain flexible on determining priorities for vaccination groups based on the epidemiology of an emerging pandemic.

As part of planning efforts, two Federal advisory committees—the Advisory Committee on Immunization Practices and the National Vaccine Advisory Committee—have made recommendations for prioritizing critical populations that might receive the first supplies of vaccine. These recommendations can be found in the HHS Pandemic Plan, which is available at www.pandemicflu.gov.

In the movie, the Virginia governor's son dies because he cannot get diabetes medicine; other drugs are not available in pharmacies.

Essential supplies, including medicine, may become unavailable during a pandemic. As part of effective planning, individuals and families should talk to their doctor about how to maintain adequate access to prescription medications.

ASD Healthcare	Phone: (866) 281-4FLU (4358) www.asdhealthcare.com
FFF Enterprises	Phone: (800) 843-7477 www.fffenterprises.com
Henry Schein	Phone: (800) 772-4346 www.henryschein.com
Henry Schein / GIV, Inc	Phone: (800) 521-7468 www.giv.com
Henry Schein / Caligor	Phone: (888) 225-4467 www.caligor.com
McKesson	Phone: (800) 446-3008 www.mckesson.com www.moormedical.com/flu
Priority Healthcare	Phone: (866) 499-1910 www.priorityhealthcare.com
PSS / World Medical	Phone: (904) 332-3000 www.pssworldmedical.com
Seacoast Medical	Phone: (800) 732-2115 www.seacoastmedical.com

Ordering from a Group Purchasing Organization

There are a wide variety of group purchasing organizations (GPOs) that generally serve hospitals and other facilities. GPOs have been in the news increasingly because of their ability to reduce costs. Some physician groups have been able to participate in such groups as well, but MDCH does not have access to a list of GPOs that may work with practices. Physicians may wish to check with hospitals, nursing homes or other health care organizations to see if there are GPOs in their area with whom they could affiliate. A list of GPOs can be found at: http://www.higpa.org/member_orgs/Member_Orgs.asp. The "Industry Members" are the GPOs. The "Affiliate Members" are the manufacturers and distributors.

Ordering from Vaccines for Children

Practices that participate in the federally sponsored Vaccines for Children program in Michigan can obtain free influenza (and other) vaccine for eligible patients. If you are not a VFC provider but are interested in becoming one, please contact your local health department. Visit the Division of Immunization program (MDCH) website at www.michigan.gov/immunize

